

Work Order ID 148878

Tuesday, July 12, 2016 8:52:05 AM

148878

Page 1

Item ID: D3436-3 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Left Step
 Start Date: 7/11/2016 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 7/12/2016 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: Process Plan: **DAS 21 9-89** Date: **JUL 13 2016** Tooling: Date: Run Start ***NR1***
 QC: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3436	Rev A								

100 0.00 ***100*** Small Fab **JUL 18 2016**
 Small Fab Memo 0.13 **4 FF**
 Small Fab Scribe blank as per template DT8771 then cut as per Dwg D3436 Identify as D3436-3Dwg Rev. **A** Debur

110 0.00 ***110*** QC6- Inspect dimensions to drawing **JUL 19 2016**
 QC Memo 0.13 **(4)** **DAS 38 9-89**

120 0.00 ***120*** Identify as per dwg & Stock Location: **JUL 19 2016**
 Packaging Memo 0.20 **4** **DAS 8 9-89**
 Packaging LOCATION: WA001

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Work Order ID 148878

Tuesday, July 12, 2016 8:52:05 AM

148878

Page 2

Item ID: D3436-3

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Left Step

Start Date: 7/11/2016 Start Qty: 4.00

4

Cust Item ID:

Required Date: 7/12/2016 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC21- Final Inspection - Work Order Release

0.00

130

QC

Memo

0.01

Quality Control

[Signature] 10/07/23
MCS

DAS
21
9-89

JUL 20 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By _____		
							Lead hand / Supervisor Approval Verification _____		
							QC / QA Coordinator Approval _____		

Root Cause				FAULT CATEGORY			
☐ Environment	☐ Design	☐ Doc/Data	☐ Equip/Tooling	☐ Handling/Pre	☐ Material	☐ Internal Transport	☐ Tribal Knowledge
☐ LOA	☐ Substation	☐ Past Expiry Date	☐ Misidentified	☐ No Re-verification	☐ Operator	☐ Offset/Setup	☐ Supplier
				☐ Training	☐ Use for Testing	☐ Poor Information	☐ Rushing
				☐ Product Improvement	☐ Process Improvement	☐ Manufacturing Process	☐ Past Due
				☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter			
				☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes			
				☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center			
				☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence			
☐ OTHER : _____							

Picklist Print

Tuesday, July 12, 2016 8:52:05 AM

Page 1

Work Order ID: 148878

148878

Parent Item: D3436-3

D3436-3

Parent Item Name: Left Step

Start Date: 7/11/2016

Required Date: 7/12/2016

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP A05.05.10New issueKJ/JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M4130NT1.000W.049		Purchased	No			100	f	35.2717	0.5733	2.413895			
M4130NT1 000W 049										**	FF	JUL 18 2016	
4130 RD Tube 1.00 X .049"W													

Location

Loc Qty

Loc Code

MAT028

10.10565

m127493

10.10565

MAT033

25.166

121250

24

124676

1.166

2.413895

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

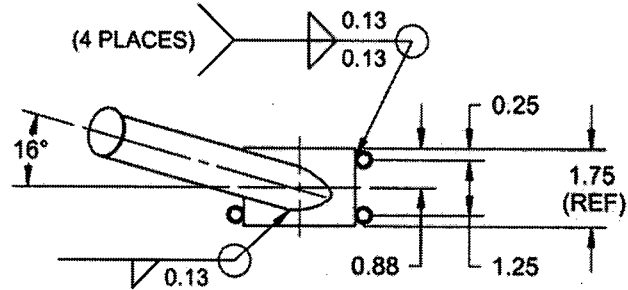
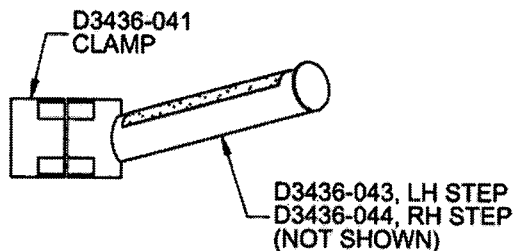
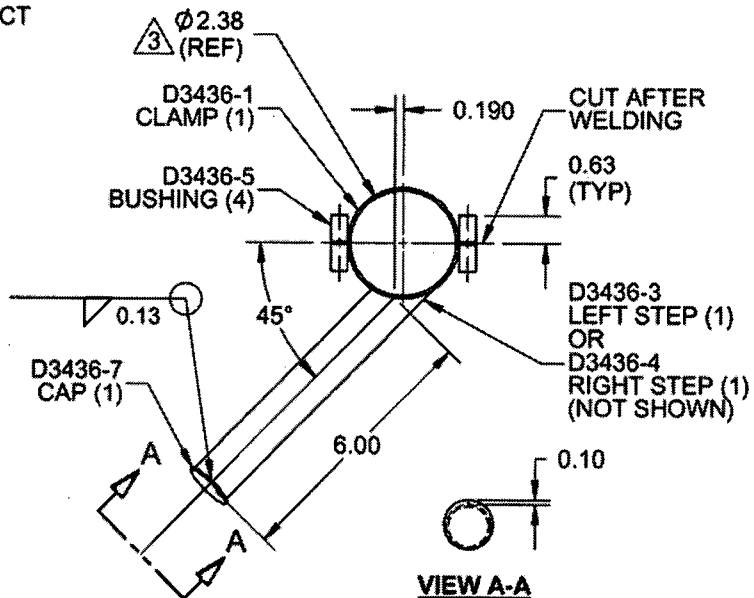
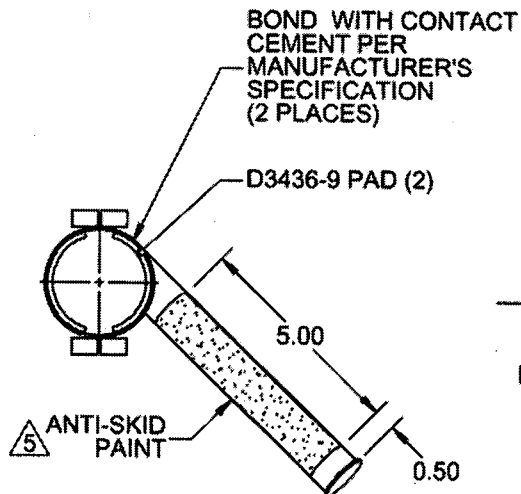
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : ☐											



DESIGN MB	DRAWN BY MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D3436	REV. A SHEET 1 OF 4
DATE 05.04.28		TITLE MAINTENANCE STEP	SCALE 1:4
A	05.04.28	NEW ISSUE	



WELDING

RELEASED

05.05.27

NOTES:

- 1) POSITION PARTS AS PER JIGS DT8772 AND DT8773
- 2) WELD PER DART QSI 004
- 3) FILLET BOTH TOP AND BOTTOM EDGES OF CLAMP ALONG 2.38 I.D. SECTION TO 0.03 RADIUS TO PREVENT SCORING AND SCRATCHING OF SKID CROSS TUBE
- 4) FINISH: POWDER COAT WHITE GLOSS (4.3.5.2) PER DART QSI 005 4.3
- 5) APPLY BLACK ANTI-SKID PAINT AS SHOWN PER DART QSI 005 4.4
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 7) ALL DIMENSIONS ARE IN INCHES

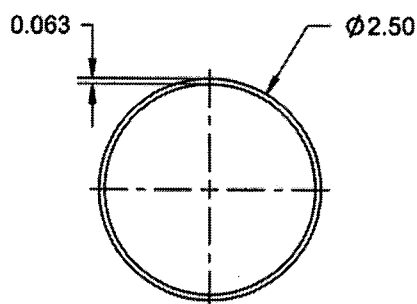
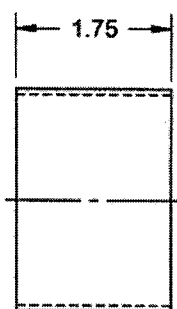
STOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 148818 MJS
16-07-13

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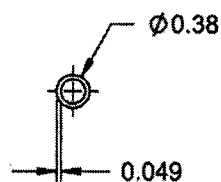
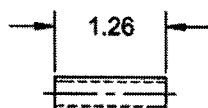


DESIGN MB	DRAWN BY MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED H	APPROVED H	DRAWING NO. D3436	REV. A SHEET 2 OF 4
DATE 05.04.28	TITLE MAINTENANCE STEP		SCALE 1:2



D3436-1 CLAMP

- 1) MATERIAL: AISI 4130N STEEL TUBING PER MIL-T-6736, AMS 6371, 6360, 6361, 6362, 6373 OR 6374 (REF. DART SPEC. M4130N-T2500W063)



D3436-5 BUSHING

- 2) MATERIAL: AISI 4130N STEEL TUBING PER MIL-T-6736, AMS 6371, 6360, 6361, 6362, 6373 OR 6374 (REF. DART SPEC. M4130N-T0375W049)

RELEASED

05-05-27 H

D3436-1/-5, GENERAL NOTES:

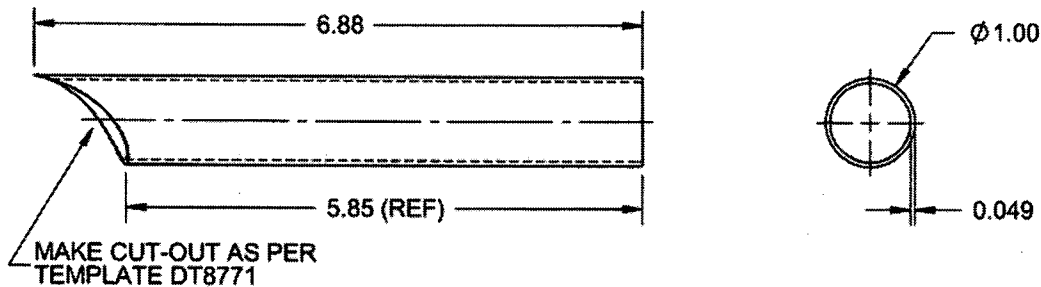
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES
5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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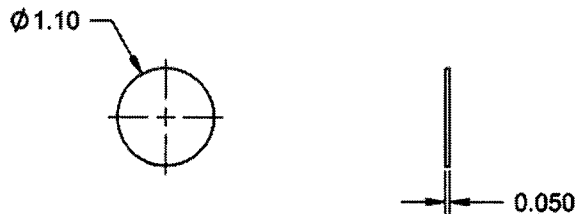
DESIGN MB	DRAWN BY MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3436	REV. A SHEET 3 OF 4
DATE 05.04.28		TITLE MAINTENANCE STEP	SCALE 1:2



D3436-3 LEFT STEP

(D3436-4 RIGHT STEP - OPPOSITE, NOT SHOWN)

- 1) MATERIAL: AISI 4130N STEEL TUBING PER MIL-T-6736, AMS 6371, 6360, 6361, 6362, 6373 OR 6374 (REF. DART SPEC. M4130N-T1000W049)



D3436-7 CAP

- 2) MATERIAL: AISI 4130N STEEL SHEET PER MIL-S-18729, AMS6350 OR AMS 6351 (REF. DART SPEC. M4130N-S050)

RELEASED

05-05-27 *[Signature]*

D3436-3/-7, GENERAL NOTES:

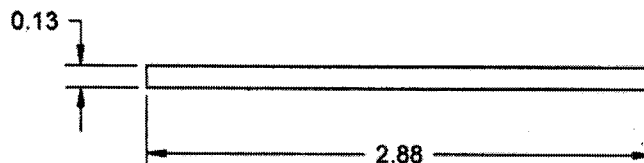
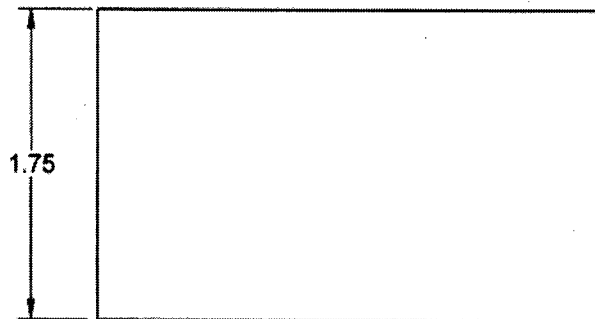
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES
5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3436	REV. A SHEET 4 OF 4
DATE 05.04.28		TITLE MAINTENANCE STEP	SCALE 1:1



RELEASED
05.05.27 *[Signature]*

D3436-9 PAD

NOTES:

- 1) MATERIAL: 60 DUROMETER NEOPRENE SHEET, 1/8" THICK
(REF. DART SPEC. M-NEO60-S.125)
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

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INSPECTION SHEET

DAS

~~30~~

9-8919